



UNITED STATES PATENT AND TRADEMARK OFFICE

*cel*

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,948	06/27/2003	Marcus W. May	SIG000096	3074
34399	7590	12/15/2005	EXAMINER	
GARLICK HARRISON & MARKISON LLP			PARRIES, DRUM	
P.O. BOX 160727				
AUSTIN, TX 78716-0727			ART UNIT	PAPER NUMBER
			2836	

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/607,948		MAY, MARCUS W.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Dru M. Parries		2836	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 8-15 and 23-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7, 16-19, 21, 22, 31-34, 36 and 37 is/are rejected.
- 7) ☐ Claim(s) 5, 20 and 35 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-7, 16-22, and 31-37, drawn to a specific process of use of an apparatus, classified in class 307, subclass 80.
  - II. Claims 8-15 and 23-30, drawn to an apparatus with a different process of use, classified in class 307, subclass 82.
2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case Invention II claims the use of a voltage divider, multiplexer, and amplifier in the process to enable/disable a DC-DC converter, and Invention I claims a process of enabling/disabling a DC-DC converter that could be done by using different elements other than the three above mentioned elements (i.e. a sensor or microcontroller).
3. During a telephone conversation with Tim Markison on November 30, 2005 a provisional election was made with traverse to prosecute the invention of the first apparatus, claims 1-7, 16-22 and 31-37. Affirmation of this election must be made by applicant in replying to this Office action. Claims 8-15 and 23-30 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

Art Unit: 2836

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 7, 22, and 37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The Examiner doesn't understand the benefit of comparing the supply voltage to the voltage on a node coupled to the alternate power source. For instance, if the battery is supplying its voltage to the supply voltage (alternate source not connected) and the voltage level is good enough to power the system and then the alternate power source is connected; how can the information received by realizing the magnitude of the supply voltage (supplied by the battery) help detect the presence of the alternate supply? An explanation would be much appreciated by the Examiner, and in that explanation a better definition of the word "unfavorably" is requested.

6. Claims 3, 18, and 33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language used in these claims is indefinite. The phrase "voltage regulation sensing" (used as a noun) is indefinite along with the method steps included in these claims, and how they would all work together with the rest of the claimed invention. Appropriate explanation is required.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 4, 16, 17, 19, and 31, 32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aldous (5,650,669) and Oh (2002/0065618). Aldous teaches a power management system comprising a microprocessor (22; i.e. mixed signal circuitry, digital interface circuitry and processing core combined) that inputs (lines 44, 60, 64, 72) and outputs (lines 42, 58, 70) analog signals and internally converts the input analog signals to digital and converts the digital signals back to analog to output them (inherent). He also teaches a first DC-DC converter (24) operable to convert DC power from source (32) comprising a DC power output from a personal computer into a supply voltage, and a second DC-DC converter (26, 48, 50) operable to convert an alternate power source (34) into a supply voltage (line 46), which is provided to the microprocessor (via line 64). He teaches the microprocessor to detect the presence of the alternate source, and when it is detected, he teaches disabling a first control loop of the first DC-DC converter and enabling a second control loop of the second DC-DC converter (Col. 8, lines 36-38; Col. 9, lines 45-52). He also teaches that when the presence of the alternate power source is not detected to enable the first control loop and disable the second control loop (Col. 9, lines 52-58). Aldous also teaches the microprocessor to disable the second control loop by adjusting the voltage regulation sensing for the second DC-DC converter from active to disable (via line 58). Aldous fails to explicitly teach that the DC power from the computer is

Art Unit: 2836

from a battery. Oh teaches a DC output power from a computer being provided by a battery ([0005], lines 3-5). It would have been obvious to one of ordinary skill in the art at the time of the invention to say that the power being supplied via input 32 in Aldous' invention is done so via a battery because the source wasn't explicitly defined and other prior art teaches the use of a battery.

9. Claims 6, 21, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aldous (5,650,669) and Oh (2002/0065618) as applied to claims 1, 16, and 31 above, and further in view of Pascucci et al. (5,768,115). Aldous and Oh teach a power management system as described above. Aldous also teaches monitoring, by the first control loop, the supply voltage produced by the second DC-DC converter (via line 64). Aldous fails to teach generating a valid supply voltage indication when a near steady-state condition has been reached. Pascucci teaches generating a valid supply voltage indication when a steady-state condition has been reached (Col. 2, lines 25-29). It would have been obvious to one of ordinary skill in the art at the time of the invention to generate this indication signal so that the circuit can respond accordingly and operate under normal conditions.

***Allowable Subject Matter***

10. Claims 5, 20, and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Aldous teaches disabling a sink transistor of the first DC-DC converter to disable the first control loop, but he fails to teach disabling a source transistor and there wouldn't be any motivation to combine a reference with Aldous to reject these claims.

***Conclusion***

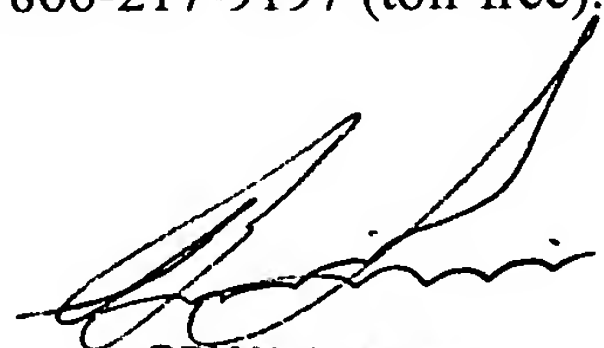
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dru M. Parries whose telephone number is (571) 272-8542. The examiner can normally be reached on Monday -Thursday from 8:00am to 5:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus, can be reached on 571-272-2800 x 36. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DMP

12-2-2005

  
BRIAN SIRCUS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER, 1100